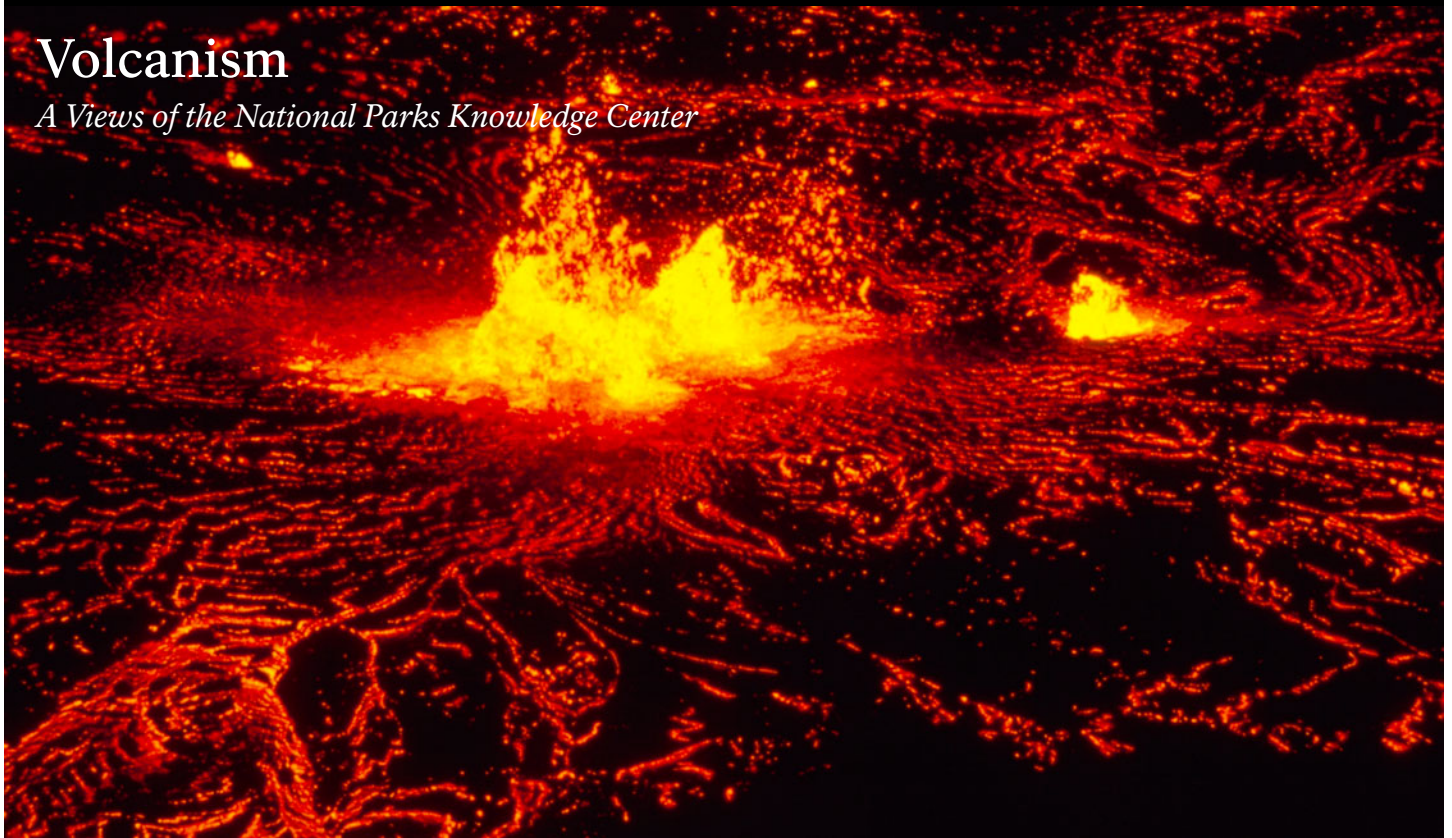




Volcanism

A Views of the National Parks Knowledge Center



It is through the process of volcanism that land is added to Earth, constantly changing the planet's surface. There are many national parks that encompass volcanic features. Central to interpretation at these parks, and geology education in classrooms, is a basic understanding of volcanism.

The Natural Resource Information Division (NRID) and the Geologic Resource Division (GRD) have teamed up to create a knowledge center on volcanism to provide information on the parts of volcanoes, how they are formed, where they are found, and the features and landscapes they create. Also, the knowledge center explores the various types of eruptions and hazards associated with volcanoes, and introduces users to the monitoring and forecasting techniques used by geologists.

Users are exposed to the processes and products of volcanism. The knowledge center allows users to see the impacts of volcanoes from the past and present in our national parks.

Features

This knowledge center is an interactive and exciting way to teach the concepts of volcanism. Explore the following features:

- Introduction and Volcanism Basics
Learn the anatomy of a volcano, and visually identify and differentiate between shield volcanoes and stratovolcanoes.
- Volcanic Eruptions and Hazards
Vivid images of erupting volcanoes and the hazards they create are both stunning and informative.
- Volcanic Landforms and Features
Explains the formation of volcanic landscapes and the types of rocks produced by volcanoes.
- Monitoring and Forecasting
Explore the science of volcanology through case studies depicting several methods of monitoring and predicting volcanic activity.
- Case Studies and National Parks
Explore various parks with prominent volcanic landscapes.

There are web links throughout the knowledge center to connecting users to more extensive sources of information or to park web pages.

Spectacular views from eruptions at Hawaii Volcanoes National Park in Hawaii inspire curiosity about the Earth and the power of volcanoes.

"We had circles and serpents and streaks of lightning all twined and wreathed and tied together, without a break ... and it was with a feeling of placid exultation that we reflected that many years had elapsed since any visitor had seen such a splendid display."

— Mark Twain
on visiting Kilauea in 1866

Visit *Views of the National Parks* online at:
www2.nature.nps.gov/synthesis/views

Learn about volcanism basics, then explore examples found throughout national parks.



“Hawaii Volcanoes National Park is presently an area of active volcanism.... Along the trail to Sulfur Bank, several fumaroles can be seen. A close look at one vent reveals bright yellow sulfur deposits. Another fumarole near Sulfur Bank deposits sulfur on nearby rocks as its gases rise through them.”

— Volcanism Knowledge Center
Learn about Fumaroles
at Hawaii Volcanoes National Park

Uses

This knowledge center can be used in interpretation programs at parks with volcanic features, or parks where volcanic features have played an important role. Visitors will have a much richer park experience if they have a basic knowledge of how volcanism can shape and affect that park.

This knowledge center can also be used to emphasize connections between our national parks. There are numerous parks that contain volcanic features and many of these are confronted with similar resource management issues. Teachers can use this knowledge center in its entirety, or in part, to expose students to the concepts of volcanoes. The case studies from different parks give students real examples of volcanoes and the landscapes they create. This knowledge generates greater understanding of the process of volcanism as it has operated in Earth's past and continues to operate today.

Teaching Standards

Standard D – Earth and Space Science

Students learn about one of the changes in the Earth system: volcanoes.

Standard E – Science and Technology

Students use an interactive computer program to access information on volcanism.

Standard F – Science in Personal and Social

Perspectives

Students learn about the impacts of volcanism on individuals and societies.

Partners

This knowledge center was developed with the help of many people and organizations. NRID expresses special thanks to:

- Hawaii Volcanoes National Park
- NPS Geologic Resources Division
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- USGS Hawaii Volcano Observatory
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